

From owner-qrp-1@netcom.com Tue Nov 29 14:50:46 1994
From: rossi@VFL.Paramax.COM
Message-Id: <9411291552.AA18712@gvlf9-a>
Date: Tue, 29 Nov 94 10:52:49 EST
Subject: *** DEC 01 FOX SCHEDULE ***

Revised FOX schedule for Thursday 01 DEC 94 UTC

I will be the fox Thursday December 1 UTC (Wednesday evening Nov 30 local time)

My primary QRP rig will not cover above 7.100 so I will be concentrating on 7.040 however, I will try get up to 7.110 with my other rig for a little bit.

I will be on from 0200-0400z (9-11 PM EST 30 Nov 94) calling " CQ FOX "

7040 +/- from 0200-0230z
7110 +/- from 0230-0300z
7040 +/- from 0300-0330z
7110 +/- from 0330-0400z

I may go back to 7040 at 0400z for a few minutes depending how things went earlier.. and how I hold up :-)

I also may be on testing out some things as early as 0100z

I just got a new 40 meter antenna up over this past weekend. Have not had a chance to really try it out... but an inverted vee with the center at about 65 feet up and the ends about 45 feet up should do something. It better...

--

Pete Rossi - WA3NNA
rossi@vfl.paramax.com
Unisys Corporation - Government Systems Group
Valley Forge Engineering Center - Paoli, Pennsylvania

From owner-qrp-1@netcom.com Tue Nov 29 02:45:23 1994
Date: Mon, 28 Nov 1994 19:01:05 -0500
Message-Id: <94112819010535@sescva.esc.edu>
From: pcalcand@sescva.esc.edu (PETER CALCANDY)
Subject: 30 meter receiver

Hi. I am looking for a schematic for a rather simple 30 meter receiver either DC or superhet? Any Ideas?

Also, I just completed a rather neat 30 meter vxo transmitter by W6emt. It works great. I want to add the receiver to complement the rig.

72 & 73.....N2KPY PETER

From owner-qrp-1@netcom.com Tue Nov 29 01:06:44 1994
Date: Mon, 28 Nov 1994 20:54:49 -0600
From: Jack Belew <jbelew@unaalpha.una.edu>
Subject: <didn't bother with a subject>
Message-Id: <9411290254.AA09047@unaalpha.una.edu>

unsubscribe qrp-1

From owner-qrp-1@netcom.com Tue Nov 29 12:36:05 1994
From: "Tim Stabler" <TSTABLER@iunhaw1.iun.indiana.edu>
Date: Tue, 29 Nov 1994 10:42:39 CST
Subject: <didn't bother with a subject>
Message-Id: <1B791D0DF2@iunhaw1.iun.indiana.edu>

Have been enjoying being in this group for the last week or so.

While reading the Email this morning, I saw Robert Gobrick's comment on hambrew magazine. I assume all know of this publication. If not, and you are in qrp, you should learn fast. It is filled with all sorts of goodies that one can build. You can write them at POB 260083, Lakewood, CO 80226-0083 or call them at 1-800-5-HAM RIG. The cost is \$20/year. For me, it was a super investment in ham radio.

Another item, if you are not into hambrew magazine. Bruce Williams, WA6IVC, has had a good series going on building. He is MXM Industries. Has an excellent receiver, the Super RX, and transmitter, Super TX available. Or both on the same board as a trans-receiver. The newest item is a transceiver. The board is 3 1/2 by 4 1/2 inches. Comes with tuning capacitors and case. Contact Bruce at Rt. 1, Box 156C, Smithville, TX 78957 or call at 512-237-3906. He is fun to talk with.

One more thing about Bruce and MXM. If you cannot get the board to work, return it to him and he WILL get it to work. And if you are not into a lot of building, that is nice to know.

From owner-qrp-1@netcom.com Tue Nov 29 14:09:40 1994
Message-Id: <9411291441.AA15694@us1rmc.bb.dec.com>
Date: Tue, 29 Nov 94 09:41:00 EST
From: Bill Acito 29-Nov-1994 0937 <acito@asdg.enet.dec.com>
Subject: <didn't bother with a subject>

John Evans writes...

| ...the last newsletter I received was back in June. Can anyone
| update me on the status.

I have not received anything since June myself. I didn't think my Field Day pictures were that bad. :-)

b
kc1gs
QRP-NE #260

.
- I own my own words -

+++++ Digital Equipment Corporation	Bill Acito
d i g i t a l Digital Semiconductor, Fab 6	
+++++ Hudson, MA	acito@asdg.enet.dec.com

From owner-qrp-1@netcom.com Tue Nov 29 15:39:26 1994
From: "Tim Stabler" <TSTABLER@iunhaw1.iun.indiana.edu>
Date: Tue, 29 Nov 1994 10:50:37 CST
Subject: <didn't bother with a subject>
Message-Id: <1B9AEB29AC@iunhaw1.iun.indiana.edu>

J Evans had a comment on about the NE Club and the NE 4040. There is a RIT modification in the latest issue of 72. It may be for NE members, but Dave Benson has a RIT kit available for \$5 postpaid for the 40-40.

From owner-qrp-1@netcom.com Wed Nov 30 05:20:09 1994
From: Jeroen Krabbendam <krabb@cs.ruu.nl>
Subject: <didn't bother with a Subject>
Message-Id: <199411300812.JAA15818@postfix.cs.ruu.nl>
Date: Wed, 30 Nov 1994 09:12:44 +0100 (MET)

unsubscribe qrp-1
--

-- Jeroen --
Jeroen Krabbendam, Department of Computer Science,
Utrecht University, P.O box 80089, NL-3508 TB The Netherlands
tel: +31-30-534114, e-mail: krabb@cs.ruu.nl

From owner-qrp-1@netcom.com Tue Nov 29 16:32:26 1994
Date: Tue, 29 Nov 1994 10:00:36 -0800 (PST)
From: Monte Stark <mswmod@sage.unr.edu>
Subject: Re: Antenna gain and QRP..

Message-Id: <Pine.SUN.3.90.941129094709.3343A-100000@nimbus>

Another point about big antennas.

I don't know of anyone who has good, big antennas that doesn't also have other rx wire antennas around. So even in the event that the big system is lost, they would be on the air with others in a flash.

How many contesters have had a "big one" fall while a test is on and just switch to another system to finish the test?

I used to think that the "big guns" got those fantastic scores by cheating etc. Then I got to meet some and watch how well they can operate. These guys get the big scores because they are that good.

I could use one of the super stations and let one of the good ops use my little station and they would still beat me! And I don't think I am too bad a contester. At least not when I was doing 2 to 4 per year.

So I say use the best antenna system that you want to. Our "wall paper" only impresses us. No one else cares! If you want to get dxcc with an underground antenna while wearing wool shorts and sending with 2 wires, then do so. (Be sure to write that one up, would love to read it)! But don't expect everyone else to do the same.

73's, & have fun, Ron

.....KU7Y.....Monte "Ron" Stark.....
..mswmod@sage.unr.edu.....Sun Valley, Nevada....
.....ARRL.....NRA LIFE.....

From owner-qrp-1@netcom.com Tue Nov 29 13:32:08 1994
From: jcumming@clark.dgim.doc.ca (Jim Cummings)
Message-Id: <9411291428.AA26249@clark.dgim.doc.ca>
Subject: Antenna gain and QRP.. (fwd)
Date: Tue, 29 Nov 1994 09:28:46 -0500 (EST)

Forwarded message:

> From owner-qrp-1@netcom.com Mon Nov 28 19:03:50 1994
 > Message-Id: <m0rCDQL-0002JXC@infi.net>
 > From: kturner@infi.net (Keith Turner)
 > Subject: Antenna gain and QRP..
 > To: qrp-1@netcom.com
 > Date: Mon, 28 Nov 1994 16:15:45 -0500 (EST)
 > X-Mailer: ELM [version 2.4 PL23]
 > Mime-Version: 1.0
 > Content-Type: text/plain; charset=US-ASCII
 > Content-Transfer-Encoding: 7bit
 > Content-Length: 1105
 > Sender: owner-qrp-1@netcom.com
 > Precedence: list
 >
 >
 >
 >
 > This will be my first post to this group, but I've been lurking for a
 > couple weeks.. I guess by definition, I'm a QRP'r as my only rig is a
 > handheld :) I've only had my license for 2 months and havent had the
 > oppurtunity to work HF yet..
 > From the overall atmosphere of the posts, it would lead me to beleive that
 > QRP doesn't just mean low power, but also simplicity and transportability
 > of equipment.. So in my opinion, The guy running into the set of 5 stacked
 > monobanders is not a QRP station.. Maybe by current definition it is..
 > Consider this.. The QRp operator with the antenna stack... His area gets
 > hit with a natural disaster and there is no commercial power.. He will
 > pretty much have to run QRP because of AC avalaibility.. Chances are his
 > antenna stack did NOT make it through the disaster.. So, He's up a creek..
 > Whereas someone that is used to working QRP with say a (insert any simple
 > antenna name here) can quickly erect a simple makeshift antenna and get on
 > the air with no problem...
 > Isn't that one of the more important points of QRP operating?
 >
 > Keith Turner
 > KE4QOL
 >

Good morning Keith:

I do not agree with you on your opinion that those who operate with high gain antennae are not true QRPers. If I may condense your thoughts, you believe that these chaps that use these antennae will be destroyed due to a natural disaster. As a result, amateurs who will have to provide communications out of the disaster area will have to operate with expediant antennae. Therefore, your inference is that QRP operators should be concentrating on transportability and easily erected antennae. As a result, those who erect these big arrays are not only violating the

spirit of ARP, but are wasting resources.

I agree with the notion that in certain disasters, some arrays won't make it. In those situations, you are right, amateurs will have to string up wire in order to communicate with other stations outside of that zone (however, there are some decent gain wire antennae that can be easily erected). But you have lost sight of the phenomenon that not only are stacked arrays good transmitting antennae, but they are also superior receiving antennae. Presuming that radiocommunications originating from a disaster area are using less than optimal antennae, would it not be prudent for amateurs outside of the disaster zone to use the best antennae that they can erect so that they can hear those disaster area amateurs with their crumby antennae? If for this reason alone your opinion is short sighted. (As an aside, if QRP rigs are the only available during a disaster, then that is what is used. However, the probability of establishing and maintaining communications increases significantly if high power radios are used, as well as with good, expedient antennae. In other words, in a disaster, if given the choice, I'll use QRO instead of QRP.)

There is an old saying in radio "If you can't hear them, you can't work them". Therefore, if you do not strive to erect the best antennae in accordance with available resources, you are operating with two strikes against yourself with QRP operating - others will have harder time to hear you, and you will have a harder time to hear them.

If I may say so, the list concentrates on low power rigs themselves and that is great. However, I hope that there will be broader discussions to include antennae in the list because operating a low power rig with the proverbial wet noodle is very frustrating and can only alienate an enthusiastic beginner.

I hope that you will be able to operate on the HF bands soon. Keep up the good work!

73 and live better digitally
Jim, VE3XJ

From owner-qrp-l@netcom.com Tue Nov 29 20:14:40 1994
From: Gary M Diana <gmd@rfc.comm.harris.com>
Message-Id: <199411292226.RAA11616@usc02.rfc.comm.harris.com>
Subject: antennas, qrp, fairness
Date: Tue, 29 Nov 94 17:25:58 -0500

Hello All -

I've been reading and thinking about the recent comments with regard to big antenna arrays and QRP: do they go together? First let me say that I have only a multiband vertical and an 80m inverted vee (at 25 feet). Not quite the setup for "the big signal". It would be nice to have large, high directional antennas, but I really don't have the room for it. So I guess my call won't be listed after AA2U in the QRP contest results ;^) Do big antennas give the other stations an advantage over me? Yes, but that's the way it is. This sort of reminds me of the road running races I used to participate in. The 135 lb guys would ALWAYS win, no chance for the big guys (back then I was 187 lbs). In running, there is the notion of a PR, a Personal Record. You keep track of your best times for various length races. The idea is that you try to establish a new PR when the spirit moves you. See, there was no way I was going to run a 45 minute 15k (my PR was 1:14), so PRs are what kept me interested.

I'm not suggesting that everyone should or would want to subscribe to the above thinking... in my case, winning a radio contest is about as likely as my winning a 10k race!

73, Gary N2JGU

From owner-qrp-1@netcom.com Tue Nov 29 08:20:29 1994
Date: Tue, 29 Nov 94 04:35:57 -0600
From: adams@chuck.dallas.sgi.com (chuck adams)
Message-Id: <9411291035.AA01013@chuck.dallas.sgi.com>
Subject: Re: Antennas/Snow

Mike, AA0UB, fought the elements (20 degrees F and 50mph gusts) to put up the Aerial and then he asks about the ladder line. I use ladder line like it's going out of style, since I use wire antennas most of the time. Last coax I used was when I put up the hamstick on the roof.

Ladder line must go to a tuner. Rarely will you ever get the impedance at the shack end to match 50 ohms. All the MFJ tuners that I know about have the binding posts to connect the ladder line or other open wire line to. The small Heath QRP tuner has the bakelite strip with screws for attaching the feeder line to.

If you are new or old to ham radio and QRP'ing, I'd recommend two things you gotta get soon. 1. An antenna tuner, either build one from the ARRL handbook or Doug DeMaw's books or pick up one at a swapmeet or buy one outta the ads in QST or other magazine. Ask the gang on this group what they think of theirs. We'll gladly give you our opinion. :-) No charge. 2. Get the MFJ-249 SWR

Analyzer, even though it's \$199.95 list. This puppy alone will save you hours in the freezing snow and climbing trees/towers/fences getting the antenna tuned. It puts out 2mW (I measured this with the OHR WM-1 wattmeter) and is accurate and covers from 1.8 to 170MHz.

OK, sorry for the dissertation NOT!! :-)) The point is - I have found that with an open line fed aerial and an antenna tuner you can tune it up to the band that you want, get on the air, and you can work people. You don't have to have 2,138 acres and an antenna farm to radiate. If you can hear them good then you can work them (the Principle of Reciprocity at work here). Here a good test of the band is how strong the 100W signals are, and there are a lot of them. If they are strong then a lot of people are gonna be able to hear you. Tune down to the low end of the band (even if you don't have an Extra class license, we will let you listen :-)) and see if you hear a pileup trying to work the Penguins on some rare rock. If you can hear a bunch doing this, then the band is really open, but this doesn't mean the band is dead either. Try a CQ (in your part of the band) and see if anyone comes back. Hey, I've done this on 10M when everyone else was just listening and worked SA, EU, AF, and other places. Even AR and TN. :-))

My favorite story of QRP work was when from an apartment with #28 wire along the edge of the building, I worked from Bryan/College Station, TX (home of the highest paid football team in the Southwest Conference :-)) to Bismarck, ND using an International Crystal OX Oscillator at 100mW out on 40M. Done with a tuner and Drake 2B receiver, in which one tube filament consumed more power than the entire transmitter. :-))

Get away from the terminal and email and get on the air. I'd be on the air right now 4:30 am, but the TU electric has decided that they want to get into the RF transmission business and emulate a spark gap transmitter that is very very broadbanded. So I'm outta here and back to building the MXM 20M xcvr.

And no, I'm not Kurt. Look at his picture at the end of Aerials II. :-)) And then compare this to the .gif files from Dayton. It's really someone else.

dit dit

SIG

Chuck Adams K5FO CP-60

adams@sgi.com

From owner-qrp-1@netcom.com Tue Nov 29 13:13:04 1994

From: jcumming@clark.dgim.doc.ca (Jim Cummings)
Message-Id: <9411291346.AA23652@clark.dgim.doc.ca>
Subject: Antennas/Snow (fwd)
Date: Tue, 29 Nov 1994 08:46:45 -0500 (EST)

Forwarded message:

> From owner-qrp-l@netcom.com Mon Nov 28 23:03:25 1994
> Date: Mon, 28 Nov 94 16:38:54 MST
> From: miker@cc.com (Mike Robinson)
> Message-Id: <9411282338.AA24881@cc.com >
> To: qrp-l@netcom.com
> Subject: Antennas/Snow
> Sender: owner-qrp-l@netcom.com
> Precedence: list
>
>
> Well I couldn't get any snow. How about 20 degrees and gusts
> of up to 50mph. Coax connectors are easy when it's freezing.
> You just score the outer sheath and bend it. The plastic breaks
> clean and you don't nick the braid. Of course my hands kept
> failing. That's ok, blood doesn't run much when it's freezing
> either.
>
> LADDER LINES
>
> When you bring the ladder line to the rig. What kind of
> connectors do you use? My tuner has the wing nuts for ladder
> line, but most of my rigs have either a PL259 or a BNC jack.
> Is there a trick to putting a 259 on ladder line?
>
> =====
> 7.3 de Michael aa0ub (formerly kd6wdd and kg0ot)
> miker@cc.com --==<< I'm the last 'S' in KISS >>==--
> =====
>

Good Morning Mike:

Yes, there is a device that will "convert" the output of your transmitter so that it can operate with balanced feedline. (By the way, a PL-259 usually fits on the coaxial cable. The connector that mates with it, usually the output connector on most HF rigs is an S0-239.)

The device that allows you to go from unbalanced output to a balanced transmission line is called a balun (a contraction of the words balanced-unbalanced). If you wish to operate from a 50 ohm unbalanced output into a 450 ohm balanced line, you will require a 9:1 balun. However, if the antenna is not also 450 ohms, there will be an SWR on the

line. With just a balun, that SWR will also be seen by your transmitter. If that SWR is high enough, and you are operating a modern rig with SWR protect circuits, those protect circuits will kick in, reduce your power output, and you will feel, understandably, that this balanced line is a crock of scatological material.

Therefore, in order to operate balanced line with an antenna where the antenna impedance does not match that of feedline, not only do you need a balun, but also a tuner.

This begs the question to you, Mike, why are you reluctant to use that tuner?

Anyways, there was a series of marvellous articles by Jerry Sevick, W2FMI, that appeared in CQ magazine. In fact, I noticed that CQ will sell the back issues for these articles (I think it was 35 George Washingtons for the set, but I stand to be corrected). I have photocopied the articles and it is all on baluns and how to wind your own.

That reminds me, I have to order some toroids so that I build a 2.5:1 balun in order to use a toroidal balun, instead of a Q section transformer for a 40 metre vertical loop. Is there anyone out there on the list who has tried the balun approach instead of the Q-section?

I might also add that the ARRL Antenna compendiums (3 have been published) are marvellous. I highly recommend their reading.

73 and live better digitally
Jim, VE3XJ

From owner-qrp-l@netcom.com Tue Nov 29 18:33:52 1994
From: jcumming@clark.dgim.doc.ca (Jim Cummings)
Message-Id: <9411291951.AA17143@clark.dgim.doc.ca>
Subject: Re: Antennas/Snow (fwd)
Date: Tue, 29 Nov 1994 14:51:33 -0500 (EST)

Forwarded message:

> From miker@cc.com Tue Nov 29 11:34:17 1994
> Date: Tue, 29 Nov 94 09:19:28 MST
> From: miker@cc.com (Mike Robinson)
> Message-Id: <9411291619.AA25638@cc.com >
> To: jcumming@clark.dgim.doc.ca
> Subject: Re: Antennas/Snow (fwd)
>
> Jim,

>
> Thanks for the input. I use the tuner for my 25 watt
> Ten Tec Century 21. But my NE30-40 puts out 950mW.
> So I figured with the loss through the tuner I'd be
> better off tuning the antenna.

Your last statement, about tuning the antenna, is true only in the instance of using a coaxial feeder where you want to trim the antenna to match the transmission line impedance. The power loss in transmission lines is a function of the SWR *** AND *** the characteristic power loss of the line for that frequency. For example, the power loss will be greater using RG59 than RG8 for a given SWR on the same frequency. However, the power losses on RG59 will be greater on the 10 metre band than on 75 metres because the attenuation characteristic is higher on 10 metres than it is on 75 metres. However, because of the low loss (in the order of a tenth of a dB) of ladder line, window line and other forms of balanced feeders, the power losses resulting from the impedance mismatches are trivial.

With respect to your concerns of losses through the tuner, inferring that the losses with 950 mW would be unacceptable, probably is not as bad as you may think. You are quite correct that tuners incur a loss as they are used. The coils are energized and have ohmic losses, and the capacitors do have imperfect connections to their rotors, they discharge, indicating that we do not live in a perfect world, etc. These losses are measurable and usually expressed in terms of decibels. However, we can also use express that loss in terms of a percent of the output with respect to the input.

My point is that if the tuner is 95% efficient, then with a 100 watt input, 5 watts will be lost. But it would be silly to assume that if you put only five watts into the tuner, nothing would come out. The point being is the losses through a tuner are relative, not absolute. With a 95% efficient tuner, the same is true in the low power scale, if you put 1 watt in, 950 mW comes out. In terms of dB (and I can't be bothered right now to calculate it), the loss due to the tuner is insignificant. In other words, don't worry about the tuner.

> Actually, my question
> to the list was not to solve a current problem.
> I was moving cables and antennas this weekend when it
> suddenly occurred to me. "If I were to try ladder line,
> how would I connect it to this rig?"
>
> With the 30-40 I run coax to the top of an inverted-V,
> through 8 coils of coax and then to the wire of the V.
> I got the SWR down to ~1:1 and get out fine.

Looks good to me. That choke will certainly do no harm and of course helps to eliminate any RF to come down on the braid.

>
> >From the C21 I connect to the tuner through and SWR
> meter with RG-8, from the tuner I run RG-8M to a 10 turn
> balun. The shield after the balun goes to a ground stake.
> The center goes to a very tall and long rain gutter.
> With tuner I can get below 1.3:1 on 80,40,20,15 and 10 meters.
> I can't seem to tune the gutter to 30 meters.
>
> How am I doing? Any suggestions?
>

Could you let me know where you saw this design? Perhaps the author might provide a bit of an explanation for the operation of this system. I am intrigued with 10 turn choke on the output of the tuner. However, I am reluctant to call it a balun. I say this because your tuner is grounded (or at least it should be!) and the braid on the output of the choke is grounded. Therefore, it is my belief that what there is not a balun. In fact, what you seem to have is long wire (gutter and centre conductor going back to the tuner) with a coaxial shield with a coaxial coil, with the braid grounded at the other end (probable ground loop there) with an extension of coaxial cable whose length will determine how lossy it is to the gutter. To my way of thinking, this is an end fed antenna with lots of extra stuff, and I doubt that this lots of extra stuff is doing you much good. I must admit that I am biased against end feds in the shack because they often result in a lot of RF floating in the shack (tingly lips on the mike is a good indicator of this maladie) and considering the concerns with exposure to RF fields, no point in taking chances, even if there is no conclusive proof of health effects in RF fields.

If it works, who am I to argue? However, you might be better to take a look at your other dipole, take out the coaxial line, and feed it with balanced line.

Just a side note - I recall reading about the problem of using garden variety SWR metres at QRP levels. Apparently, they work just fine at QRO, but at QRP, they don't produce enough energy for the sense diodes so that the measurement is taken beyond the turn-on knee of diodes (you will recall that silicon diodes don't turn on until they are forward biased by at least .7 of a volt - that is the turn on knee that I am referring to) As a result, you will have to be careful on what kind of SWR meter you use. I believe that OHR meter has overcome this problem by using DC amplifier circuits.

I mention this because you should be able to use your dipole with

balanced line but you will have to be careful in measuring the SWR while tuning.

Oh yes, one final word. I believe McCoy once wrote that the optimal minimum size of a balance fed antenna is 1/4 of a wavelength of the lowest frequency band in use for the balanced fed dipole in question. in other words, on 80 metres, the smallest your antenna should be is about 70 feet tip-to-tip (35 feet each side), according to McCoy. IF is is smaller than that, I guess it doesn't work as well.

As far as your gutter antenna not working on 10 MHz, there could be a number of explanations for no success in tuning. Perhaps that coil is having an effect, maybe if you remove that, you might have some success. On the other hand, maybe the impedance of the antenna system at the output of the tuner appears to be that of a half wave. If this were the case, the impedance is quite high (in the order of 5k ohms or so) and your tuner may not be capable of resolving that to 50 ohms. You might try removing the coil. You might also try adding some wire, say about 10 feet (it really doesn't matter as long as it is not another half wave or multiple thereof) to the other end of gutter and see what happens.

But that is the challenge of radio Mike. So let me know what happens.

I hope others read this and let me and Mike know if I am way off base.

```
> =====
> 7.3 de Michael aa0ub          ( formerly kd6wdd and kg0ot )
> miker@cc.com                  ---<< I'm the last 'S' in KISS >>---
> =====
>
```

73 and live better digitally
Jim. VE3XJ

From owner-qrp-1@netcom.com Tue Nov 29 02:26:51 1994
Date: Mon, 28 Nov 1994 22:10:36 -0700 (MST)
From: "James P. Rybak" <jrybak@mesa5.mesa.colorado.edu>
Subject: Re: Are there plans out there for a 10m SSB Rig
Message-Id: <Pine.3.89.9411282245.A23696-01000000@mesa5.mesa.colorado.edu>

On Mon, 28 Nov 1994, Jeffrey Herman wrote:

> I'd like to see some detailed articles on converting modern-day
> CB SSB rigs to 10M (RS has one one sale for \$(very cheap)).
> These synthesized rigs would be a great way to get on 10M, but
> we need folks experienced in conversions to tell us discrete
> component builders how to conduct the surgery.
>
>
> Jeff NH6IL
>
>

I, too, would be interested in hearing if anyone has modified a modern
SSB CB rig to operate on 10 meters.

Jim W0KSD

From owner-qrp-1@netcom.com Tue Nov 29 16:28:52 1994
Date: Tue, 29 Nov 94 11:25:10 CST
From: msdooley@collie.aud.alcatel.com (Michael S. Dooley)
Message-Id: <9411291725.AA18627@collie.aud.alcatel.com>
Subject: Re: Are there plans out there for a 10m SSB Rig

> Crew,
>
> Well are there? I am looking for plans/schematics for a 10m QRP SSB
> rig! Does such a beast exist? I found a 20m plan, but my electronics
> knowledge is limited to say the least. So if there is a book or an article or
> plans that someone wouldn't mind sharing (photocopy would be great!) please
> email me at sdarragh@cisco.com
>
> Thanks for the help in advance,
>
> Scott
>

Yes, there are. There are plans published in the past for converting
SSB CB radios to 10 meters. I've done several of these conversions and they
work very well! I've also converted several CBs to 10 FM, which is a lot of
fun.

Mike KE4PC

From owner-qrp-1@netcom.com Tue Nov 29 17:02:35 1994
Date: Tue, 29 Nov 1994 12:49:09 -0800 (PST)
From: John Dundas <ab6dg@netcom.com>
Subject: Auttek RF-1
Message-Id: <Pine.3.89.9411291255.A17972-0100000@netcom3>

I am giving serious thought to purchasing the Auttek RF-1 "RF Analyst" and

wonder if anyone has any experience with it, thoughts about it, etc. I already have the MFJ 207 antenna meter, but the Autek ads make me think theirs does a lot more.

Any and all comments greatly appreciated

73 de John, AB6DG

From owner-qrp-l@netcom.com Tue Nov 29 23:57:45 1994
Date: Tue, 29 Nov 1994 19:33:07 -0700 (MST)
From: Robert Cutter <bcutter@csn.org>
Subject: Re: Autek RF-1
Message-Id: <Pine.3.89.9411291911.A20893-0100000@teal.csn.org>

On Tue, 29 Nov 1994, John Dundas wrote:

> I am giving serious thought to purchasing the Autek RF-1 "RF Analyst" and
> wonder if anyone has any experience with it, thoughts about it, etc. I
> already have the MFJ 207 antenna meter, but the Autek ads make me think
> theirs does a lot more.

>

> Any and all comments greatly appreciated

>

> 73 de John, AB6DG

>

I have had mine for about 6 weeks and think it is great. Used it for the fall antenna work. I have had some experience with the MFJ and I like the Autek better. Easier to set and hold a frequency setting and the display really does work in bright sun.

72, Bob KI0G

From owner-qrp-l@netcom.com Tue Nov 29 06:15:01 1994
Date: Mon, 28 Nov 1994 23:31:44 -0700 (MST)
From: john cox <n5zyr@unm.edu>
Subject: Capacitor value needed
Message-Id: <Pine.3.89.9411282315.A23469-0100000@carina.unm.edu>

Can anyone tell me what the value should be for "C 3" on page 78 in "W1FB's QRP NOTEBOOK"? I would like to build both the 30 and 40 meter version and I have studied the article closely but I can't find the value listed for that one cap. Tnx for any info! de n5zyr@carina.unm.edu (John)

From owner-qrp-l@netcom.com Tue Nov 29 09:26:56 1994
Date: Tue, 29 Nov 94 04:59:21 -0600
From: adams@chuck.dallas.sgi.com (chuck adams)

Message-Id: <9411291059.AA01068@chuck.dallas.sgi.com>
Subject: Re: Capacitor value needed

John, N4ZYR, asks about C3 on page 78 of the QRP NOTEBOOK. I'd start with 22pF and work up to 47pF and maybe as high as 100pF. I would guess that it's not that critical, as it is a coupling cap from the tuned circuit to the input of the NE602.

dit dit
SIG
Chuck Adams K5FO CP-60
adams@sgi.com

From owner-qrp-1@netcom.com Wed Nov 30 00:56:15 1994
Date: Tue, 29 Nov 94 17:11:50 HST
From: jeffrey@math.hawaii.edu (Jeffrey Herman)
Message-Id: <9411300311.AA15704@kahuna.math.hawaii.edu>
Subject: Cold water pipe = hot rig

Caution: Cold water pipes do not make a good grounding system! Most plumbers place a very thin teflon-type covering over the threads of each pipe. Thus, in this case your 'ground' will only be one length of pipe.

Jeff NH6IL

From owner-qrp-1@netcom.com Tue Nov 29 16:55:43 1994
From: Mike.Czuhajewski@hambbs.wb3ffv.ampr.org (Mike Czuhajewski)
Subject: Comment and QRP content
Date: Tue, 29 Nov 94 13:04:26 EST5EDT
Message-Id: <1994Nov29.130426.8641@wb3ffv.ampr.org>

Just a comment on all the unsubscriptions--I sent a private comment back to someone who just unsubscribed, and in his reply he mentioned that he pays 15 cents per incoming e-mail message; I forget if he was on Compuserve or which service it was, but 15 cents times, say, 20 e-mails a day on the QRP list....run that out for a few days, and you can easily see why folks are dropping like flies without the digest. (Don't forget, pseudo-digests are available from sunSITE.unc.edu via FTP.)

Now to the mandatory QRP content: We still have about ten uncommitted copies of the Milliwatt reprints sitting around waiting for a home. If you'd like one, send along our check per previous postings, and the

Message-Id: <Pine.3.89.9411290814.H3890-0100000@ncrsun7>

Here is a contest idea that comes to mind out of the periodic thread on "big-gun" (high gain) antennas:

What if we held a QRP contest (or any level for that matter) where the key criteria was identical antennas. Say a 40 meter wire dipole at 25 feet -- something that most could achieve.

And then if we held the power-level constant, differences would lie more in operator skill, propagation, ground and topography, etc.

I am generally against "high gain" antennas and in favor of wire antennas, although I admit I am strongly swayed by the arguments of directional antennas being more efficient and QRM reducing as favorable supporting arguments for beam antennas.

Cheers, 73, de Kevin, KB9IUA

Kevin L. Anderson, CENCR-PD-W, U.S. Army Corps of Engineers
Rock Island District Office, Planning Div.-Waterway Systems
Rock Island, Illinois 61204-2004, USA phone:(309) 794-5605
e-mail: anderson@ncrsun1.ncr.usace.army.mil

Opinions expressed here are my own and do not represent the
U.S. Army Corps of Engineers or the Federal Government.

From owner-qrp-1@netcom.com Tue Nov 29 19:36:03 1994
Date: Tue, 29 Nov 1994 13:54:29 -0800 (PST)
From: "H. Ward Silver" <hwardsil@seattleu.edu>
Subject: Re: contest idea/antennas
Message-Id: <Pine.3.07.9411291328.C23304-b100000@bach.seattleu.edu>

Antennas are so variable with respect to local topography, ground conductivity, etc. that trying to equalize based on considerations of ERP is a quagmire from which there is no escape. I know...I was in charge of evaluating stations for the 1990 World Radiosport Championships up here in Seattle. We had stations with every possible antenna configuration, yet there was very little correlation between station hardware and final score.

Put another way...give AA2U a wet string and he'll still beat our butts like a drum. A good operator dominates any other factor.

Let's face it, some folks like the challenge of establishing communication

using the absolute least amount of power possible. Others like to reduce power, but go for distance, instead. The joys of competing in the big contests against the BIG GUNS with QRP is yet another avenue for personal satisfaction. The idea that one group is more "correct" than another is just fatuous nonsense...

Nothin' like a good wire antenna...and I've used lots...but don't tell me that my quad and 40-meter beam somehow diminish the quality of my QRP QSOs. On the contrary, I feel enhanced by the engineering of my station to squeeze the most out of every watt. Go for it! And I say the same for the mountaintopper with the solar-powered rig and random wire flung into the tree.

Sorry...I'm having a good time!

73...really!
Ward N0AX

From owner-qrp-l@netcom.com Tue Nov 29 10:30:33 1994
Date: Tue, 29 Nov 1994 09:51:47 -0330 (NST)
From: Robert Gobrick <bgobrick@random.ucs.mun.ca>
Subject: Curtis Chip Competition (CCC)
Message-Id: <Pine.3.87.9411290947.D14619-01000000@random.ucs.mun.ca>

QRP-L gang,

Any keen eyes catch this on page 146 of the Dec issue of CQ - Radio Adventures (the company that advertizes the W1AW Receiver kit ?) has a NEW C1 CMOS Iambic Keyer/Controller Chip out that looks like direct competition to the Curtic chip. All the Iambic stuff plus timing and sequencing keying functions - default settings and adjustment for speed, weight and spacing and pitch. 3.0 to 6.0 volts at 2 ma and 5 ua in the sleep state.

OK, ready for this - \$14.95 in lots of one. How much do you think we can get the price down in quantity for a QRP-L project.

I'll be getting some info from Radio Adventures on the chip and kleep you all posted. Radio Adventures Corp., PO Box 339, Seneca PA 16346 (814-677-7221 or Fax 814-677-6456).

72 Bob V01DRB/WA6ERB

PS: Just wish they could squeeze in one memory message for calling CQ QRP.

PSS - Please excuse ALL My postings for spell checking - I'm a poor

(illiterate) engineer and my Internet spell checker for this PINE mailer just doesn't help. I cringe every time I see one of my messages posted realizing all the spelling errors. I really would prefer composing my messages off line using a decent ASCII editor but this cryptic UNIX connection at the University here just begs for being updated to the 20th century - I need to upload my files over the modem using Kermit since ZModem scrambles every thing - downloading files using Zmodem is OK though - grhhhh.

From owner-qrp-1@netcom.com Tue Nov 29 04:09:56 1994
Date: Mon, 28 Nov 1994 23:04:25 -0800 (PST)
From: Monte Stark <mswmod@sage.unr.edu>
Subject: Re: Fox Schedule
Message-Id: <Pine.SUN.3.90.941128225514.215B-1000000@nimbus>

Hi Chuck,

Put me down for Dec 27, 0300 to 0500, GMT
Dec 26, local 7110 + qrm for 1 hr
then
7040 +- qrm for at least 1 hr

Will be in Idaho. Not sure if I will use the mobile
or do it from someones place. Will just see how things
work out.

Boy, that new ts 950 and 3 ele 40m mono @ 80' sure look
nice over at Don's place....(KA7T)....Would be warm also.
Hum...I bought his "old" 930....maybe if I talk real nice.

He, he, he.....

Also mark me for Feb 21, 0300-0500 GMT
Feb 20 Local 7110 + qrm for 1 hr
then
7040 +- qrm for at least 1 hr

Will be here in NV for the Feb sked.

73's, Ron

.....KU7Y.....Monte "Ron" Stark.....
..mswmod@sage.unr.edu.....Sun Valley, Nevada....
.....ARRL.....NRA LIFE.....

From owner-qrp-1@netcom.com Tue Nov 29 15:23:57 1994
Message-Id: <INELVM1.LVE.891449080094333FINELVM1@INEL.GOV>
Date: 29 Nov 1994 08:49:08 MST
From: "Larry East" <LVE@inel.gov>
Subject: From Peak-to-Peak volts to Watts

Advanced Nuclear Systems Technology
MS 7113 533-4005 lve@inel.gov

Seems like we went thru this before a month or so ago, but for the new commers here it is again. To convert from peak-to-peak voltage to watts, do the following:

$$\text{Watts} = (\text{PP}^2) / (8 \times R)$$

In words: Square the Peak-to-Peak voltage reading, divide by 8 times the load resistance.

Thus if you see 40V pp across 50 Ohms, your are getting 4.0 Watts out.

Added note: best to measure RF on a 'scope directly at the scope input and NOT with a probe; the frequency compensation of scope probs (partucularly the 10X types) may NOT be flat!

Have a productive day :-)

From owner-qrp-1@netcom.com Tue Nov 29 16:28:01 1994
From: Mike.Czuhajewski@hambbs.wb3ffv.ampr.org (Mike Czuhajewski)
Subject: GIF viewer?
Date: Tue, 29 Nov 94 12:41:30 EST5EDT
Message-Id: <1994Nov29.124130.8641@wb3ffv.ampr.org>

A while back I mentioned that the QRP pix on the archive machine had heads cut off, body parts missing, etc, and was told that they are good pix and nothing cut off; someone else then promised to send me a copy of a shareware (I think) GIF viewer when he got his system back up, but never heard from him again...and naturally I don't have the message and didn't write it down. Whoever you are, I'm still waiting for a GOOD viewer so I can see all of K5F0 and KI6DS's faces! 73...

--

Mike Czuhajewski, user of the UniBoard System @ wb3ffv.ampr.org
E-Mail: Mike.Czuhajewski@hambbs.wb3ffv.ampr.org
The WB3FFV Amateur Radio BBS - Located in Baltimore, Maryland USA
Supporting the Amateur Radio Hobby, and TCP/IP InterNetworking

From owner-qrp-l@netcom.com Tue Nov 29 20:10:53 1994
Date: Tue, 29 Nov 94 17:37:04 EST
Message-Id: <9411292237.AA23191@maxwell.ansoft.com>
From: palmer@ansoft.com (Palmer Davis)
Subject: Good news, bad news

Well, my 30-40 kit finally arrived... but I can't make it to any of the
scheduled license exams until some time in January! Aaargh!
Not that I'm going to have any time to build my 30-40 before then,
between trying to get a

Palmer Davis <palmer@ansoft.com>
Ansoft Corporation, Four Station Square, Suite 660, Pittsburgh, PA 15219

From owner-qrp-l@netcom.com Tue Nov 29 15:58:13 1994
Date: Tue, 29 Nov 94 11:00:46 CST
From: kosa@sun18.aws.waii.com (bob kosa)
Message-Id: <9411291700.AA19082@sun18.aws.waii.com>
Subject: HELP, please get me off this list!

Sorry for the wasted bandwidth guys but I have been trying endlessly
to get off of this list and it won't happen! Can someone please take
my name off the qrp-l list? I would really appreciate it.

Thanks,

Bob N5LC0
n5lco@amsat.org, kosa@sun18.aws.waii.com, kosa@ipxpress.aws.waii.com

> Date: Tue, 29 Nov 1994 08:50:59 -0800
> Message-Id: <199411291650.IAA21144@mail3.netcom.com>
> To: kosa@sun18.aws.waii.com
> From: listserv@netcom.com
> Subject: Majordomo results
> Reply-To: listserv@netcom.com
>
> --
>
> >>>> unsubscribe qrp-l kosa@sun18.aws.waii.com
> **** unsubscribe: 'kosa@sun18.aws.waii.com' is not a member of list 'qrp-l'.

From owner-qrp-l@netcom.com Tue Nov 29 19:40:52 1994
Message-Id: <sedb33c6.083@WordPerfect.com>
Date: Tue, 29 Nov 1994 13:59:12 -0700

From: Michael Bendio <MB@WordPerfect.com>
Subject: KeyCAD symbol libraries

I believe someone mentioned a while ago that he had created some schematic symbols for this program that he was willing to share. I just bought the program at lunch time and would appreciate a copy of these symbols.

72,
Michael Bendio, WT7J
mb@wordperfect.com

From owner-qrp-l@netcom.com Wed Nov 30 00:50:38 1994
Date: Tue, 29 Nov 94 16:54:26 HST
From: jeffrey@math.hawaii.edu (Jeffrey Herman)
Message-Id: <9411300254.AA15649@kahuna.math.hawaii.edu>
Subject: Let's go one step further...

The argument against high gain commercial antennas can be pushed to another area dear to our hearts - here's the analogy:

Homebrew simple antennas are good, while commercially-built gain antennas are bad

can be extended to:

Homebrew simple transmitters are good, while kits and commercially built transmitters are bad.

Now, how many of us believe the second statement? (Personally, I do but that's another story - we've already had that debate!)

And if gain antennas are 'bad', what about my wire dipole with a parasitic wire element behind it? I've been able to significantly reduce backside radiation by appending that parasitic element, thus providing some forward gain. Is that bad?

What of Chuck Adams with his many acres of ranch land? The antennas he can put up are the dreams of the rest of us. Is that 'bad'?

And what of those who have backyard trees over 50 feet high? Should we deduct points from them?

If, in fact, good and bad antennas exist, where do we draw the line?

.73 from Hawaii (where winter has finally arrived: only got to 78 degrees today, and it'll probably drop into the high 60's tonight [brrrrrr]),
Jeff NH6IL

From owner-qrp-1@netcom.com Tue Nov 29 07:02:44 1994
Date: Tue, 29 Nov 94 03:58:50 -0600
From: adams@chuck.dallas.sgi.com (chuck adams)
Message-Id: <9411290958.AA00982@chuck.dallas.sgi.com>
Subject: Re: MFJ Keyer a keeper?

Larry, KQ4BY, brags on his acquisition of a MFJ 407B Keyer and Bencher paddle for cheap dollars. Hey, good deal Larry. I have the MFJ 407 and I'm sitting here with it's guts exposed. The case is 6"(d)x7"(w)x2.25"(h) and the PC board is 5 3/8"(d)x6"(w) (my apologies for the English units to the rest of the world).

They (MFJ) used a Curtis 8044B (14 pin chip) in this one with manufacturing date of 1985 - third week. You can tell the date of manufacture on chips (most of the time) because of a four digit date stamped on the top of the chip, i.e. 8503 means 1985 third week. MFJ could have put the components (1 14 pin DIP, 4 transistors, 13 resistors, 6 diodes, and 11 caps) in a much smaller space!!

That's why (the overall size and weight) I'm looking for a smaller deal. I have smaller keyers, like the CMOS II, but there is always a need for something to go in a rig.

I'm not familiar with the 407B that Larry has, but Larry I'd guess it uses the 8044ABM chip. Keep it. You'll regret parting with it and everyone on this group has parted with something during their life that they to this date wish they had kept.

You didn't say whether it was the chrome Bencher or the Black base, either is nice. Keep 'em both forever and keep at it on getting the feel and the rhythm down. You won't regret it.

My \$0.02.

dit dit

SIG
Chuck Adams K5FO CP-60
adams@sgi.com

From owner-qrp-1@netcom.com Tue Nov 29 22:42:03 1994
From: NYOUNG@nova.wright.edu
Date: Tue, 29 Nov 1994 19:47:48 -0400 (EDT)
Subject: More boring drive1 from the nut case out back
Message-Id: <01HK2A5UDLNM8WWK0M@nova.wright.edu>

Salutationings,

Twenty summers (and lord knows how many winters) ago, when I first got into radio, all I had money and space and time for was a dipole held aloft with 20 ft of tv mast on the roof. I "fed" it with 300 TV twin lead and used a tuner. I worked really well and I could actually get WB4REN and the rest of what was once the "Ohio Valley Teen Age Net" (they're all old geezers now with fancy homes and well-trimmed lawns) to talk to me. I ran my Argonaut into a tuner and talked. That was that.

Then I got a real job and a real house and a real station. After I blew up the HW101, I got a TR7 and, having money left over for trivia, I put up 42 ft of tower and homebrewed a \$50, 3-element, rotatable, directional antenna out of aluminum tubing and some stray RG213. It worked really well, and I could actually get people in far-off countries where they don't have baseball strikes to talk to me. And to make matters worse, I had enough 6 ton aircraft cable holding the tower up that I hosed it into the shack with open-wire line and could actually get people in Colorado to acknowledge my presence in the 160m contest, when the rest of the world was putting up Christmas trees.

Then my brain dried up and I moved into this dump and had to staple burned out slide projector motor windings into the roof beams for an antenna. I fed it with 300 TV twin leand and used a tuner. Nobody would talk to me and I started watching baseball. It got so bad that I went to the doctor and he asked me why I wasn't an alcoholic. I told him that I hated getting sick. He gave me some medication and I'm cured now. I'm no longer mentally deaf. I can hear the voices again.

That happened because I took the radios out to the former out house that is on my property. I ran some wire out there for AC, put a 20 ft piece of chain link fence top rail in the air and hung some wires off it. I feed it with 300 TV twin lead and I can now actually get people in far off places to acknowledge my presence on 30m running 5 watts. It's great.

But next summer I'm gonna take those six sections of tower that I got from the drug-crazed drag strip mechanic's kid down the street and put my home-brew 3 element piece of directional

hardware up in the air. And then I'll really be able to hear the voices good. I can hardly wait.

In the meantime, though, I'm helping some Hindu and Pakistani students put together a cricket team. We're gonna take the championship away from Jamaica next year in the inter-collegiate games. The only hold up is the voices. They won't tell me where to get the sheep to keep the grass around the pitch trimmed down good. I hope I find 'em soon, 'cause the 3 element antenna is in pieces out there somewhere by where third man stands. And he ain't talking.

73

Nils

WB8IJJ &c

"Now junior, you know how we feel about people who can't suppress their food barks."

From owner-qrp-l@netcom.com Tue Nov 29 08:16:03 1994

Date: Tue, 29 Nov 1994 06:00:45 -0500 (EST)

From: "John A. Evans" <jaevans@clark.net>

Subject: NE QRP Newsletter (72)

Message-Id: <Pine.SOL.3.91.941129055848.18826B-100000@explorer>

Quick query,

I re-upped my membership, albeit a bit late, to the NE-QRP club, but the last newsletter I received was back in June. Can anyone update me on the status. I assume I am just behind the power curve. I really wanted to see the new mods for the NE 40-40 for RIT.

72

john

John A. Evans, Capt, USAF
VHDL/EDA Engineer
N3Q00 Tech Plus !!!

"My number one goal as a
runner is to live long enough
to place in my age group!!!"

jaevans@clark.net

Mother's Breast Milk - Baby's drug of choice !!

From owner-qrp-l@netcom.com Tue Nov 29 22:41:26 1994

Message-Id: <9411292235.AA01232@interval.interval.com>

Date: Tue, 29 Nov 1994 14:36:01 -0800

From: burdick@interval.com (Wayne Burdick)
Subject: Need Beta site for NC40 AGC mod

Hi gang,

I'm working on an experimental wide-range AGC circuit for the NC40A and I need someone (maybe two) to try it out, quick. Eric Swartz, WA6HHQ is trying it out, but I'd like at least one more opinion.

If you have a NorCal 40, a FAX machine, access to the list of parts below, and salivate at the thought of tweaking an AGC circuit, please get back to me ASAP.

There are only 8 parts:

- RFC, 27uH (can substitute 22 or 33uH)
- MPSA14 (darlington transistor)
- .01uF cap
- 0.33uF cap (or thereabouts)
- 47K and 4.7M resistors
- (2) 1N914s or equivalent.

Basically, this change makes the AGC range much greater, at the cost of some increase in the attack time. Details and schematic by fax.

Thanks,
Wayne N6KR

P.S. -- Thanks to whoever managed to get Stan Cooper's photos of the Sierra into the QRP column in 73 magazine (December). Jeez, if someone had told me ahead of time, I'd have volunteered more information on the rig. As it is, the article provides little detail.

From owner-qrp-1@netcom.com Tue Nov 29 23:07:38 1994
Message-Id: <9411300208.AA09842@interval.interval.com>
Date: Tue, 29 Nov 1994 18:09:19 -0800
From: burdick@interval.com (Wayne Burdick)
Subject: need Mike Bryce's e-mail address

...if he has one. Anyone know it?

I'll settle for a phone number otherwise. (I have his snail-mail address.)

Thanks,
Wayne N6KR

From owner-qrp-1@netcom.com Tue Nov 29 19:59:23 1994
Date: Tue, 29 Nov 94 11:22:10 CST
From: msdooley@collie.aud.alcatel.com (Michael S. Dooley)
Message-Id: <9411291722.AA18624@collie.aud.alcatel.com>
Subject: Re: NOTE 11/28/94 09:36:46

> 28 November 1994
> From: P. Beedlow, NN9K
> pb13128.deere.com
>
> Subject: Thanksgiving Fox Hunt
>
> Wonder how many other folks missed the 'hunt' Thanksgiving day because the
> posting didn't arrive until today? Since I was tracking some problems at work
> I was faithfully checking all my mail everyday. Did some back tracking and
> all of our sytems were up and running during the holidays. So really don't
> know where the bottle neck was.....
[snip]

The bottleneck is at Netcom. I looked at the message header when I received it.
Netcom received it:

Received: by mail3.netcom.com (8.6.9/Netcom)
id KAA11624; Wed, 23 Nov 1994 10:20:34 -0800
Received: from Vela.ACS.Oakland.Edu by mail3.netcom.com (8.6.9/Netcom)
id KAA11518; Wed, 23 Nov 1994 10:19:51 -0800
^^

I received it from Netcom:

Received: from mail3.netcom.com by aud.alcatel.com (4.1/SMI-4.1)
id AA27088; Sun, 27 Nov 94 06:37:01 CST
^^

Looks like Necom to me.
Mike KE4PC

From owner-qrp-1@netcom.com Tue Nov 29 16:51:24 1994
From: RAINS@NKU.EDU
Date: Tue, 29 Nov 1994 15:21:23 -0400 (EDT)
Subject: Paddle projects?
Message-Id: <01HK216GDMK295MR49@NKU.EDU>

Hello all, my name is Justin. I was just wondering if anyone has any plans for unique paddles, etc. I have designed a keyer using a 556 timer IC, but I haven't got to use it yet. I would like to build some different types of paddles, I saw a post refering to the hacksaw paddle, but I missed the article itself. My mail address is:

Justin Rains
28989 Stout Road
West Harrison, IN 47060

E-Mail: rains@nku.edu
Packet: AA9KM@K8SCH.#CIN.OH.USA.NA

73 and thanks for taking the time to read this message-----> Justin

From owner-qrp-1@netcom.com Tue Nov 29 14:01:46 1994
Date: Tue, 29 Nov 1994 10:01:33 -0500 (EST)
From: CEBIK@utkvx.utk.edu
Subject: QRP and big (?) (directional?) antennas
Message-Id: <01HK10WRK6AA91XNP2@utkvx.utk.edu>

Since I have been a member of QRP groups for a number of years, I thought I might throw out an old fashioned view on the question of QRP and big antennas.

First, I agree that QRP is a challenge. And QRP operators have found ways to increase the challenge: fixing on the simplest gear possible, operating from fun or difficult field sites, operating solar power, and a host of other allied challenges to go with QRP.

Second, I have to go back and ask "Why QRP?" QRP means reduce power. The basic reason for reducing power is to use the minimum power necessary for communications. The reason for using the minimum is to reduce insofar as possible interference to other stations on or near frequency. The history of QRP/ARCI begins with the proposition that 100 wats or less is enough for virtually any amateur circuit and permits others to operate with less QRM. The question of "how low can we go?" came later, but is a valid question within the original framework of reducing interference to others. Other challenges attached to the later question have never invalidated the original matter of courtesy and responsibility to other users of the spectrum.

QRP is one way to reduce interference. Directional antenna arrays are another. Towered Yagis are but one type of directional array. A high dipole is bidirectional, but directional nevertheless. We can reduce

interference further by trying a high extended double Zepp: it reduces the half-power beamwidth by about 50%, thus reducing interference from angles adjacent to the desired direction. Try a 180-degree phased pair of EDZs: narrower yet with gain that rivals the bigger Yagis. Or perhaps a parasitic EDZ pair for nearly 15 dBi gain--the 5 element Yagi region. All these wire antennas tend to escape the attention of the steel and aluminum skyscrapers, but they are directional antennas that serve to reduce interference from as many directions other than the desired signal path as possible. They are all QRM reducers and thus compatible with the original aim of QRP: to use the least power possible for communication in order to reduce interference to others using the spectrum.

If a ham uses 50 milliwatts to a vertical and makes contacts on a vector other than between us and his signal interferes with my communications, then we have a problem (even if it is one with which we must by regulation and law live with in the amateur service). If he changes to a directional antenna and his signal my way goes down by 20 dB, he deserves a thank you note from me, just as he would deserve one for reducing his power by 20 dB.

Of course, we want to meet the challenges that go with QRP. We have seen QRP equipment that once grew small only as it grew super-simple now become small but extremely sophisticated. Why should we not also grow as sophisticated with antennas. Field work, remote locations, solar power, and similar ventures do not mean we must use only the simplest basic antennas. Rather, the antennas we use must be light, transportable, reliable in the field, easy to put up and take down, and compact for our vehicles and backpacks. It is possible to design, at least for the upper HF bands, directional arrays that meet those criteria for many of the challenges we add to QRP operation. I have used a number of collapsible dipoles, arrays, and Yagis, and like any other experimenter, I am never quite satisfied. But, like the perfect field rig, that is part of the lure of the work. To do better. And every time I do, I can feel a bit more satisfied that I have enjoyed my challenge with minimal interference to the enjoyment of other hams meeting their challenges.

Now, if I put the receiver input amplifier and the transmitter output amplifier at the center of the driven element of the array and omit the feedline (with its losses and noise) from the critical IN/OUT threshold, I might gain a bit of efficiency and reduce power even more for the same signal path. Hmmm. . .

2 cents worth is 2 cents worth, no matter how long winded.

-73-

LB, W4RNL

From owner-qrp-1@netcom.com Tue Nov 29 06:09:35 1994
From: K7YHA@aol.com
Date: Tue, 29 Nov 1994 02:41:16 -0500
Message-Id: <941128232403_972226@aol.com>
Subject: QRP and BIG Antennas

Maybe it's me but judging from the negative responses I saw regarding the KD4 in SFL (I rechecked my logs) during SS, using the TWO stacked FIVE element monobanders on 15 meters, I am more than a little disturbed.

To say that you aren't a real QRPer unless you run less than 5 watts into a wet noodle is utter tripe! You use the VERY BEST antenna or antenna system that you can beg, borrow, buy or steal! This is especially true in contesting and DXing. That is why AA2U has two KT-34XAs on a 90 foot tower topped with a two element 40 meter beam. That's also why Randy (AA2U) has over 300 countries with 5 watts and close to 200 with under 1 watt. Big antennas work. That's why we use them.

Big, directional, high gain antennas are good engineering practice. Not only does it concentrate the RF in the desired direction, they reduce signals from unwanted directions. This makes everybody's job easier.

I have played this QRP game for over 30 years. I have made the necessary contacts to qualify for DXCC several times under callsigns including CT2BH, KA2AA and G5CSU. Since I hate paperwork in general and QSLing in particular, I never submitted the necessary cards to get the wallpaper. In all instances, I worked the DX using an assortment of dipoles, windoms and vertical antennas. Not only did I suffer the standard 13 to 18 dB power disparity between my QRP station and the other DXers on the band, I used "substandard" antennas. (Substandard antennas from the standpoint of the norm for serious DXers). To sum it up: "Been there, done that", and it's frustrating.

If you can afford the money and time and have the desire why, not erect the biggest, most efficient antenna system you can in order to make your job easier? To those who think that you have to play the QRP game as a "purist" and not use anything but simple, wire antennas, I bet you guys love root canals and IRS audits, too.

72 rich

From owner-qrp-1@netcom.com Tue Nov 29 15:34:10 1994
Date: Tue, 29 Nov 94 10:25:31 CST
From: randg@oakhill-csic.sps.mot.com (Rand Gray-Dev_Tools)
Message-Id: <9411291625.AA04035@apache.sps.mot.com>
Subject: Re: QRP and BIG Antennas

There IS an attraction to simplicity that goes hand in hand with the idea of QRP, but this isn't the source of the debate about BIG antennas.

The fact is that many of us live in neighborhoods where we CANNOT have any kind of conspicuous antenna. It is not simply an issue of "you don't have to live there, move somewhere else" either. Many of us don't have a real alternative. This will get WORSE, not better, for many more of us in the future.

A 5 watt output into a gain antenna on the top of a tower can definitely have an ERP which outmatches a guy with a 100 watt output into an attic-mounted, shortened dipole. This DOES cloud the meaning of QRP, much more than in the old days when nobody bothered you if you put up an antenna in your yard.

Of course it is "good engineering practice" to use the most effective antenna you possibly can. The fact is that the antenna is the single most important component in any radio station. It is also good engineering practice to get along with your neighbors, not violate neighborhood or town restrictions, and to live within your budget.

The normal method for assessing the effectiveness of an antenna is to use a field strength meter, and measure the profile of the signal at a standard distance. Equivalence of the radiated signal is really all that counts to the operator on the receiving end of your signal. It is certainly feasible to reproduce a standard field strength meter, and to establish standard guidelines in its use.

Just because we currently use power output as a standard for contesting doesn't mean it can't be changed!

If you have a great antenna, then rejoice! But please don't advise those of us who CANNOT have ANY conspicuous antenna that we should duplicate your antenna installation, or make snide comments about enjoying root canals and IRS audits.

72,

Rand W1GXX

From owner-qrp-l@netcom.com Tue Nov 29 19:08:40 1994
From: "Greg Taylor" <GTAYLOR@TAEX003N.tamu.edu>
Date: Tue, 29 Nov 1994 14:34:46 CDT
Subject: Re: QRP and BIG Antennas
Message-Id: <186C8E10C66@taex003n.tamu.edu>

To weigh in on the discussion.....

I think its important not to confuse qrp (low power) with "simple" radio. This can occur, I believe, because of the associated tradition of homebrewing (which btw doesn't have to be simple). Along with this is interest in making a rig as small or as simple as possible. Similarly there is another tradition of using simple antennas from portable locations facilitated by the use of battery power which can dictate qrp (low power levels). All are equally valid and can be used in various combinations, i.e. simple antennas and power, low power and big antennas, etc.

Myself, I would dearly love to have a complex rig (digital, memories all that good stuff)...but I don't and a directional antenna of some sort...but I don't. My interest is in doing the best I can with what I got at lower power than others. I've gotten 100+ countries qrp with a wire antenna at 20 ft and won the section qrp in several contests and would like to do more by putting up a directional antenna (one of these days.....)

I wouldn't like to see low power (or qrp) operation necessarily tied to any of the other equally fine traditions with which it is associated. However, I do certainly appreciate and support the tradition of reporting rig and antenna type along with results such as that in QRP Quarterly so I can compare my efforts (call it skill or knowledge if you will) so I can compare myself with others.

Greg, KD4HZ

From owner-qrp-l@netcom.com Tue Nov 29 18:07:52 1994
Subject: Re: QRP and Big Antennas...
Date: Tue, 29 Nov 94 10:44:58 PST
From: Eric Swartz WA6HHQ <erics@cruzio.com>
Message-Id: <9411291045.aa26117@cruzio.cruzio.com>

Larry East writes:

>

> ...running 5w to

> a super big (or even just big) antenna and claiming to be running QRP seems
> like a slap in the face to us "normal" folks.

Larry,

I'll have to differ with you on this one. Both the QRP'er using a simple dipole and the one using a Beam are putting the same amount of energy into the ether, (assuming similar radiation efficiencies). The one with the dipole is simply spreading this energy over a wider angle than the one with the beam. In fact the user of the beam might even be considered to be operating more in line with QRP ethics by avoiding QRMing hams who are off to the side of his beam.

Antennas represent one of the most facinating aspects of QRP for me. The ability to improve my signal, AND the strength of the received signal, with improved antenna designs really is exciting! - (And this doesn't have to be expensive if you home brew the antennas.) Everything from bigger and better beams to easy to erect and use portable antennas falls into this category.

For me, the objective of QRP is to make low power contacts with what ever you have available. If you can improve the chance of making a contact by improving your receiver, antenna, location or operating skills - more power to you! (No pun intended...). In any case, you are still having a good time at minimal expense, (QRM), to others. Isn't that what QRP is really all about?

72, Eric WA6HHQ

--

From owner-qrp-l@netcom.com Tue Nov 29 14:15:23 1994
From: jcumming@clark.dgim.doc.ca (Jim Cummings)
Message-Id: <9411291504.AA28355@clark.dgim.doc.ca>
Subject: QRP and Big Antennas... (fwd)
Date: Tue, 29 Nov 1994 10:04:22 -0500 (EST)

Forwarded message:

> From owner-qrp-l@netcom.com Mon Nov 28 16:49:14 1994
> Message-Id: <INELVM1.LVE.510705110094332FINELVM1@INEL.GOV>
> Date: 28 Nov 1994 11:04:11 MST
> Reply-To: <LVE@inel.gov>
> From: "Larry East" <LVE@inel.gov>
> Subject: QRP and Big Antennas...
> To: qrp-l@netcom.com
> Comment: INELVM1 LVE 11/28/94 11:04:19 INELSSW
> Sender: owner-qrp-l@netcom.com

> Precedence: list
>
>
> Advanced Nuclear Systems Technology
> MS 7113 533-4005 lve@inel.gov
> The note about the guy (or gal?) running 5W into stacked monobanders grated
> a nerve in me that has always been close to the surface... running 5W into
> a super big (or even just big) antenna and claiming to be running QRP seems
> like a slap in the face to us "normal" folks. So what if you can work Lower
> Slobovia with 1.0W into a 20DB gain beam -- you could probably do just
> as well with 100W into a dipole hung from your back fence -- and with one h#\$\$%
> of a lot less money invested!! Seems to me that the use of high gain antennas
> should be taken into account in QRP categories of contests -- maybe divide the
> claimed score by the gain of the antenna or some such. This has always been
> a sore point with me -- how about others? To keep the QRM down, don't everyone
> jump on the keyboard! Maybe you can send replies direct to me and I'll tab-
> ulate the oppinions for everyone else on the list.
>
> 72/73, Larry W1HUE/7
>
> (Real QRPers don't use beam antennas...)
>
> Have a productive day :-)
>
>

Hello Larry:

You're funny :->> You have to be kidding ;->

Bringing your argument to reductio ad absurdum (reduce it to the absurd end), QRPers should be transmitting into a dummy load.

I think your post points out that the list concentrates only on one aspect of QRP operation, that being the low power nature of the transmitters. However, it is much more important, regardless of the power used, that the most efficient antennae should be used.

I think that working Lower Slobovia is an achievement in itself, regardless of the power used, considering the paucity of licensed amateur operating from there :-0. However, certain amount of admiration has to be accorded to the individual who can do it with one watt.

However, as I have said on another posting << You can't work 'em, if you can't hear 'em >>, not only are you increasing your chances of being heard in the target area (and why that is a violation of the QRP principles I can't figure out), but you are also increasing your chances of hearing the other station.

Therefore, those who have big arrays are to be admired and envied and emulated in accordance with the old army saying "Reinforce Success". It's ludicrous to scorn a QRP'er with a big array, which seems to be based on jealousy rather than results.

73 and live better digitally

Jim VE3XJ

From owner-qrp-1@netcom.com Tue Nov 29 15:23:58 1994
From: jcumming@clark.dgim.doc.ca (Jim Cummings)
Message-Id: <9411291648.AA09035@clark.dgim.doc.ca>
Subject: QRP and Big Antennas... (fwd)
Date: Tue, 29 Nov 1994 11:48:23 -0500 (EST)

Forwarded message:

> From LVE@inel.gov Tue Nov 29 11:17:33 1994
> Message-Id: <INELVM1.LVE.701015090094333FINELVM1@INEL.GOV>
> Date: 29 Nov 1994 09:15:09 MST
> Reply-To: <LVE@inel.gov>
> From: "Larry East" <LVE@inel.gov>
> Subject: QRP and Big Antennas... (fwd)
> To: jcumming@clark.dgim.doc.ca
> Comment: INELVM1 LVE 11/29/94 09:15:02 INELMAIL
>
>
> *** Reply to note of 11/29/94 08:03
> Advanced Nuclear Systems Technology
> MS 7113 533-4005 lve@inel.gov
> Gee... think you missed my point. Oh well.
>
> Have a productive day :-)
>

Hello Larry:

Hmmm... I must admit that subtleties rarely work with me. I'm a "smackin him in the head" type of guy who sometimes needs to have a brick thrown at me before I get the point.

So what was the point that I missed?

73 and live better digitally

Jim, VE3XJ

From owner-qrp-1@netcom.com Tue Nov 29 02:58:41 1994
Date: Mon, 28 Nov 94 21:11:27 PST
From: dh@deneb.csustan.edu (Doug Hendricks)
Message-Id: <9411290511.AA08926@deneb.csustan.edu>
Subject: QRPp Mistakes

There is an error in the Epiphyte VFO that I published in the December 94 issue of QRPp. I forgot to include a 51K resistor that goes in series between C11 and C6. Break the trace and insert the resistor. It works much better. FAR Circuits is making these boards and you can get one drilled and plated for \$4.75 plus \$1.50 shipping per 4 boards. I am sending him the corrections so that he can put them on the next set. Sorry about the mixup, but the error is entirely mine.
72, Doug KI6DS

There is an error in the parts overlay of the Epiphyte Amplifier that was published in the December 94 issue of QRPp. This was not the fault of Derry Spittle, VE7QK, the author, but was due to an error on my part when I drew the diagram. C4 and C5 are on the schematic, but are not on the parts layout. C4 goes right below the jumper J1, and C5 goes between T1 and L1. Also, on the schematic, I failed to identify the positive side of C1, which is the side opposite of ground, or in other words, connect the negative side of C1 to ground. The parts overlay also shows that there are 2 two pin molex connectors for +12V and PTT. That is wrong, and should be changed to a single 3 pin connector, using +12V for 1 pin and PTT for the other 2 pins. Sorry for the inconvenience that this may have caused.
72, Doug KI6DS

From owner-qrp-1@netcom.com Tue Nov 29 18:37:34 1994
Date: Tue, 29 Nov 94 13:09:08 -0700
From: Mark Monninger <markm@bigfoot.sps.mot.com>
Message-Id: <9411292009.AA03394@bigfoot.sps.mot.com>
Subject: RIT for NE 40-40

Greetings all...

I understand there was a RIT circuit for the NE X0-40 rigs in the recent NE Club newsletter. Would it be possible to get some kind soul to fax me a copy of the circuit? Or maybe scan it into postscript and put it on an ftp server somewhere? Or post it to the group if it's ASCII-able?

Thanks & 73... Mark AA7TA FAX: (602) 413-5842

From owner-qrp-1@netcom.com Tue Nov 29 02:53:34 1994
Date: Mon, 28 Nov 94 21:12:54 PST

From: dh@deneb.csustan.edu (Doug Hendricks)
Message-Id: <9411290512.AA08932@deneb.csustan.edu>
Subject: Scope Freq. Readout

I learned something really useful last night about my Tektronic 465A scope. You can have a frequency readout really easy. Eric Swartz, WA6HHQ, told me that all you have to do is to hook up your frequency counter to a bnc connector on the back of the scope. I looked, and sure enough, there are 4 bnc output connectors on the back. Since I use channel 1, I hooked my frequency counter to this connector, and now I have direct frequency readout of the waveform that I am looking at on the scope. This is really handy for setting up VFO's.

This might seem really simple to the EE types on this list, but to the beginners like me, it is really neat to know. I don't know if other scopes have this feature, but you might want to check it out. Thanks to Eric for pointing this out to me.

72, Doug, KI6DS

From owner-qrp-l@netcom.com Tue Nov 29 20:11:03 1994
Message-Id: <9411291611.AA0202@bobea.watson.ibm.com>
Date: Tue, 29 Nov 94 11:09:31 EST
From: "Robert E. Easton 8-862-3241" <bobea@watson.ibm.com>
Subject: This week's FOX

When and where should we expect to look for this week's FOX? The last schedule I saw had no details for this week. ... and postings seem to move very slowly at times. Posting a schedule only a few hours before the event misses a lot of us. I saw the T-day event posting long after it happened.

:-)

73, Bob - N2IPY

From owner-qrp-l@netcom.com Tue Nov 29 18:18:31 1994
Date: Tue, 29 Nov 1994 14:03:54 -0800
From: nlist@netcom.com (Michael L. Ardai)
Message-Id: <199411292203.0AA22488@netcom4.netcom.com>
Subject: Re: Unsubscribing

Please don't send subscribe/unsubscribe requests to the list. To unsubscribe, send mail to listserv@netcom.com with the text (not subject)

unsubscribe qrp-l

After you unsubscribe, it may take a few days for mail already sent to you to get there, so don't panic, and be patient. If you have any problems, send me mail at nlist@netcom.com and I'll see what I can do.

Also, if your mail bounces for 'no such user', 'no such address' or way

too many bounces, you will be removed. Feel free to resubscribe when the problem is fixed (I had over 1100 bounces waiting for me when I got back from Thanksgiving, after only 4 days - that's why I tend to be a little heavy-handed about this. Sorry.)

/mike

n1list@netcom.com

Maintainer, BARC lists

From owner-qrp-1@netcom.com Tue Nov 29 16:23:30 1994

From: stockton@stockton.ppco.com

Message-Id: <9411291825.AA16374@stockton.ppco.com>

Subject: Re: VX0 xmitter

Date: Tue, 29 Nov 94 12:25:03 -0600

OK, now that I have my head on straight...the W6EMT 30M VX0 transmitter, put together this weekend, has a power output of 3.6 w. across a 50 ohm dummy load. Just what it should be. I need to thank all of those who responded to my question about the proper way to measure output power with an oscscope. I realized my mistake about two seconds after mailing to the list, but the responses are appreciated. I think it will be a long time before I stay up all night again putting together a kit. ;-)

My next project, after getting up an antenna for 30M is to build a qrp wattmeter. I would like to build the one on p. 34-6 of the '94 handbook. Does anyone know if there is a pcb available? I would prefer not to make the board unless I have to.

++++++
Glen E. Stockton K5UP ges@ppco.com
QRParci #4009 Bartlesville, OK
++++++

From owner-qrp-1@netcom.com Tue Nov 29 22:37:53 1994

Date: Tue, 29 Nov 94 23:02 GMT

From: jlivingston@cix.compulink.co.uk (John Livingston)

Subject: Re: W5QJR Antenna products

Message-Id: <memo.263931@cix.compulink.co.uk>

In-Reply-To: <199411290327.TAA19844@ix.ix.netcom.com>

No replies about W5QJR or his book yet

If QRP can mean "small" as well as low power, then the magnetic loop antenna has to be ideally suited to QRP. Basically, the loop is just a inductor/capacitor resonant circuit, with some sort of matching to the feeder. The Inductor forms the radiating bit, and is usually a single turn of heavy gauge copper (copper water pipe of 1 or 2 inch diameter is

often used). The loop must be a small fraction of a wavelength - for example - about 5 feet diameter for 40 or 80 meters. A Quad would not qualify - it is a large fraction of a wavelength in size. The use of heavy conductor is the secret - the radiation resistance will be a fraction of an ohm, and conductor losses must be in the milliohms for the thing to work. The problem is that the Q of the antenna will be high (about 200-500 typically), and the voltages and currents would be huge when operating QRO. Not really a problem at QRP, but the conductor still has to be heavy to avoid losing most of your milliwatts. The good bit is that the antenna can be operated very near ground and will have a much higher efficiency than an equivalent small whip. For example - a 5 foot loop on 40 could be expected to have an efficiency of around 50% if you keep the resistance right down, while a loaded 5 foot whip near ground would be doing well to radiate 5% of the power fed to it, due to loading coil and ground losses. The bad bit is that the thing will need retuning every few KHz due to the high Q, but this applies to ALL very small antennas.

There have been various articles in the mags over the years describing loops, but I think the W5QJR book may be a summary of design data, and that's why I'm trying to find one. There have been several good designs of transmitting loops published in the G-QRP magazine (Sprat) over the years, often using the outer of heavy coax cable as the loop conductor. It would be interesting to hear about the use of loops at QRP. Any of you guys been using one ?

John Livingston jlivingston@cix.compulink.co.uk
G4FDD G-QRP 431
+44(0)1904 794305 FAX +44(0)1904 657778

----- Original Message -----

>From goldnite@ix.netcom.com Tue Nov 29 03:25:50 1994
Received: from ix.ix.netcom.com (ix.ix.netcom.com [199.182.120.2]) by
cix.compulink.co.uk (8.6.9/8.6.9) with ESMTP id DAA17623 for
<jlivingston@cix.compulink.co.uk>; Tue, 29 Nov 1994 03:25:50 GMT
Received: from ix.ix.netcom.com (8.6.9/SMI-4.1/Netcom) id TAA19844; Mon,
28 Nov 1994 19:27:32 -0800
Date: Mon, 28 Nov 1994 19:27:32 -0800
Message-Id: <199411290327.TAA19844@ix.ix.netcom.com>
>From: goldnite@ix.netcom.com (BARRY BRYANT)
Subject: Re: W5QJR Antenna products
To: jlivingston@cix.compulink.co.uk ("John Livingston")
Apparently-To: jlivingston@cix.compulink.co.uk

You wrote:

>

>I would like to get a copy of a book which (I believe) was published by
>Ted Hart W5QJR -
>called "Small High Efficiency Antennas - Alias the Loop". Is W5QJR on
the
>Net ?
>
>John Livingston jlivingston@cix.compulink.co.uk
>G4FDD G-QRP 431
>+44(0)904 794305 FAX +44(0)904 657778
>

hi john,

i was wondering if you received any information about the
loop? and how good is it, compared to vertical or dipole?
can send some information about it.

73s
barry ka2oyf

From owner-qrp-l@netcom.com Tue Nov 29 01:41:00 1994
From: mont@netcom.com (Mont Pierce)
Message-Id: <199411290528.VAA27581@netcom2.netcom.com>
Subject: Re: Water pipe ground
Date: Mon, 28 Nov 1994 21:28:03 -0800 (PST)

> On Antennas...
>
> The ARRL book recommends using the cold water copper
> tubing for a good ground. If it's dangerous to touch
> the radiator of an antenna, isn't it then dangerous
> to touch the ground of an antenna? If I use the
> cold water copper piping for a ground tie is there
> a possibility of someone using the water tap getting
> shocked?

That's a good question. I think that you could say that the copper
water pipe is a good alternative if you don't have any choice. You
bring up a good question though. Touching the ground is not usually
a problem, because the ground takes the current, it being the path
of least resistance. However, even with a grounding rod, if you connect
tuned radials to the ground to improve the counterpoise, you can get a
shock at the end of the radials. I guess the same thing could happen
if a section of water pipe is close to 1/4 wave length away from actual
ground.

Has anyone ever experienced a problem with using water pipes for ground?

It might be hard to tell, you have to transmit AND be at the end of the water pipe to experience the effect...

72,
km6wt

--
Mont Pierce

```
+-----+
| Ham Call: KM6WT           Internet:  mont@netcom.com |
|   bands: 80/40/20/15/10/2 |
|   modes: cw,ssb,fm       |
+-----+
```

From owner-qrp-1@netcom.com Tue Nov 29 16:54:44 1994
Date: Tue, 29 Nov 1994 09:22:22 -0800 (PST)
From: "H. Ward Silver" <hwardsil@seattleu.edu>
Subject: Re: Water pipe ground
Message-Id: <Pine.3.07.9411290921.D12961-b100000@bach.seattleu.edu>

The assumption when using a water pipe ground is that it actually enters the ground at a distance of much less than 1/4-wavelength from the rig/antenna tuner/feeline at the frequency in use. If you're using it at 10-meters, then you better be in the basement, 'cuz that limits it's length to something like 4-feet, including the ground strap.

If the length to ground is right about 1/4-wavelength, then you can actually have a quite high impedance. If the length is about 1/2-wavelength, then the impedance will again be low, but you've added a dipole to your ground system! There will be a significant current maximum on that 1/2-wavelength conductor and it WILL radiate.

To answer the question about shocks/RF burns...if the water-pipe run is long enough, then there will be a voltage maximum somewhere, and maybe more than one. The faucets are usually at the end of a pipe (read "open circuit") and are, by definition, high-impedance/high-voltage/low-current points. If someone is using the faucet while you transmit with more than, say, 20 or 30 Watts, it's possible that they might receive some RF tingle.

The point of all this is to keep the ground connection SHORT, keeping in mind that "short" changes with frequency. If you're at one end of the house and the pipe enters the ground at the other, then don't use it! Run a strap to a ground rod outside, or use 1/4-wave counterpoise wires.

This old "water-pipe" thing comes from back in the days when most operation was at less than 10MHz (excuse me, Mc ;-)) and the wavelength was long enough that it didn't much matter if it took a few feet to get to

the earth.

Happy Hunting and 73
Ward, NOAX

From owner-qrp-1@netcom.com Tue Nov 29 21:18:32 1994
Date: Tue, 29 Nov 1994 19:56:02 -0330 (NST)
From: Robert Gobrick <bgobrick@random.ucs.mun.ca>
Subject: Re: your mail
Message-Id: <Pine.3.87.9411291902.D407-0100000@random.ucs.mun.ca>

Tim - the 72 article on the NE QRP 40-40 RIT mod is the same that Dave is selling (he wrote the article). The mod is not for NE QRP members only - just for the folks who have paid their dues to get the 72 magazine - and by the way this did appear in the Oct issue (Sept).

72 Bob VO1DRB/WA6ERB

On Tue, 29 Nov 1994, Tim Stabler wrote:

> J Evans had a comment on about the NE Club and the NE 4040. There is
> a RIT modification in the latest issue of 72. It may be for NE
> members, but Dave Benson has a RIT kit available for \$5 postpaid for
> the 40-40.
>